Swansea University Prifysgol Abertawe

Speaker 1

Optimisation of next generation galvanising pot hardware

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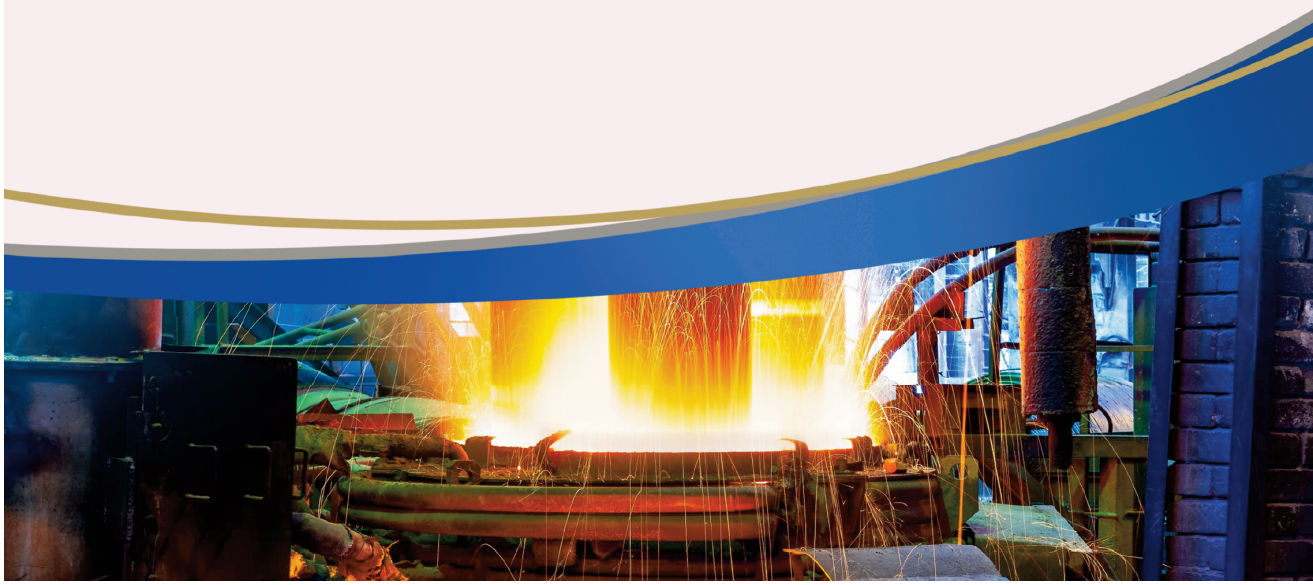
ABSTRACT:
Galvanising lines must comply with stringent quality requirements and the performance of the pot hardware affects production and quality of galvanised steel sheet. The pot roll bearings are subjected to severe deterioration due to the reaction of the bearing materials with the galvanising bath. Limiting the so-called 'down days' for maintenance leads to an increased production yield and financial interests for the industry. Ceramics are inert in many molten metals and their use as bearing materials can increase the duration of a galvanising campaign. The present study investigates on the performance of ceramics for use as galvanising bearing materials. Static immersion testing was performed to assess the corrosion behaviour in liquid zinc alloy followed by material characterisation to analyse the interactions with the molten metal bath. The results showed that ceramics remained unreactive in liquid zinc-aluminium and, therefore, they can be potentially used as bearing materials in continuous galvanising lines.



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